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cc:
Subject: NEPA Task Force

Rhey

Because of other priorities, and staffing, we have been delayed in getting our Task Force inputs to you. I can e-mail a preliminary version to you, by senior folk want it formally signed out to CEQ... Can I e-mail it directly to you in the interim? I may have to ask you not to put it on your website until the last possible instance. Thanks

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Federal Register Questions and Air Force Responses

A. Technology, Information Management, and Information Security: The NEPA Task Force will explore opportunities for utilizing information management technologies to enhance the effectiveness and efficiency of the NEPA process. Specific examples of innovative technical approaches to the assessment and communication of potential environmental impacts are sought. Examples include use of geographic information system (GIS) software, document creation and comment management systems. The handling of sensitive infrastructure and operational information will be reviewed. The Task Force seeks your input on this topic and requests responses to the following questions.

1. Where do you find data and background studies to either prepare NEPA analyses or to provide input or to review and prepare comments on NEPA analyses? The information may include scientific and statistical information in printed or electronic form. Examples include but are not limited to species or wetlands inventories, air quality data, field surveys, predictive models, and trend analyses.

Various Air Force organizations use software to enhance the effectiveness of the NEPA process. Preferred methods for conveying or receiving NEPA related information are through the use of public meetings, newspaper releases, and web-based mediums. Sensitive information is available only upon request and is not posted on web-based links for general public review.

Historically, environmental professionals mined data and background studies from a myriad of sources, and that still often is the case. However, at some locations a more programmatic attempt to organize data has been tried. For example, In order to enhance easy access to accurate and appropriate information to support decision-making, a "Living Environmental Baseline" (LEB) is used at Eglin Air Force Base (AFB), Florida. The LEB basically is comprised of a family of hypertext documents that describe the military mission of all hosts and tenant organizations that utilize a facility, the expendables that are released as a function of the test and training missions, and an Environmental Baseline Summary, which serves as an "encyclopedia" reference document describing environmental conditions and regions of influence. Information is managed in a series of formats including hypertext documents, databases; geospatial files with attribute data, and web based document management systems and geographic information systems.

From the Geographic Information System (GIS) perspective, much of the data necessary for proper NEPA analyses is available in electronic format. Even hardcopy maps can be scanned and digitized for use with established, installation-level GIS. Most states have geospatial libraries, usually maintained by a state university, that have data of statewide resolution. Although that data may not be the optimum for installation-level analysis, it can be used to guide any necessary ground-truthing. Such ground-truthing can enhance the resolution of the data and thus support good analysis and selection of a preferred alternative

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2. What are the barriers or challenges faced in using information technologies in the NEPA process? What factors should be considered in assessing and validating the quality of the information?

There are numerous barriers/challenges faced in using information technology (IT) in the NEPA process at Eglin AFB. First is the challenge of justifying the investment necessary to establish knowledge management systems for environmental impact analysis. Mining existing geospatial and associated attribute data is expensive and does not compete with hard-core environmental compliance requirements. In the NEPA area, the perceived requirement is to develop the appropriate NEPA documentation and work it through the interdisciplinary review and public involvement processes. That is where the limited resources are spent. Establishing a comprehensive "Living Environmental Baseline" or library of environmental information takes considerable resources. In addition, in order to be effective and credible it must be maintained, which requires an on-going commitment of resources. Beyond resourcing, other challenges include data quality assurance and control. This includes first being able to capture metadata (data about the data) that describes the source and age of the data. Next comes the challenge of determining what data is scientifically sound and credible. As IT matures more and more information becomes available. Unfortunately, only a small portion of this information is documented adequately and requires each user to perform quality assurance and control. One solution may be for CEQ to sponsor establishment of Living Environmental Baselines or Clearinghouses to warehouse regional environmental information/data. The academic community might be a good candidate to perform this service. Universities and or community colleges could become the keepers of environmental knowledge.

From the GIS perspective, the challenge with information technologies is accurately communicating the situation on the ground. As with many means of media, color and symbology can be manipulated to steer the decision-maker toward a specific alternative. That puts a burden on the staff of the decision-maker to research the data behind the presentation and validate it. Another challenge includes that of sharing data between agencies. This is now becoming a minor challenge, thanks to the migration of the different software packages available for spatial analysis. Multiple sources of data can also be a challenge. The coarse resolution data from Agency X won't fit well with the fine resolution data from Agency Y. Although both sources of data are accurate and up to date, their varying levels of resolution drive the analyst to a process of adjusting the data so the analysis will not return false results.

3. Do you maintain databases and other sources of environmental information for environmental analyses? Are these information sources standing or project specific? Please describe any protocols or standardization efforts that you feel should be utilized in the development and maintenance of these systems.

Some program managers maintain automated databases of baseline environmental information for installation activities and environmental impact information for projects and activities implemented, approved, or proposed since the baseline was established. (Details are provided in the case study presented below.)

At Eglin AFB, a "Living Environmental Baseline" was developed over the last eight years and is presently shifting into a five-year update and maintenance phase. The intention is to update the LEB based on newly assessed projects/missions. The proposal listed above to establish regional clearinghouses could help to standardized information storage and retrieval not only for the multiple decision making authorities within the region, but if constructed as a nationwide model could facilitate standardization of information warehousing nationwide.

From a GIS perspective, accurate databases of environmental data can be maintained. Data is continuously updated and refined as changes to the landscape occur. Applications should not be standardized because it is impossible to develop an environmental application that will work at every installation across the country. The CADD/GIS Technology Center, a part of the Corps of Engineers at Vicksburg, MS, has been working for years to establish a set of standards for geospatial data across the Services. They are named the Spatial Data Standards for Facilities, Infrastructure and Environment. They are readily available for download from their website: http://tsc.wes.army.mil/. Also, within the Air Force, the GeoBase initiative, championed by the GeoIntegration Office at Air Staff is striving to standardize the use of geospatial technologies. The benefit will be less redundancy and more leveraging of lessons learned in the development of these tools and applications.

4. What information management and retrieval tools do you use to access, query, and manipulate data when preparing analyses or reviewing analyses? What are the key functions and characteristics of these systems?

At Sheppard AFB, Texas, NEPA Management System (NEPAMS) is used to calculate environmental impacts of proposed projects and provides decision-makers cumulative impact information. This system allows the program manager to input project-specific data with a bearing on potential environmental impacts and receive as output a spreadsheet comparing project impacts for each quantifiable resource with the baseline and cumulative impacts related to implemented, approved, or pending projects. Project impacts are also compared with the potential cumulative impacts of maximum installation development (maximum capacity or activity). This database provides the NEPA program manager cumulative impact information on a continuous basis. (Details are provided in the case study presented below.)

The Environmental Impact Analysis Process (EIAP) at Eglin AFB utilizes an interactive web site for submittal of Request for Environmental Impact Analysis (AF Form 813). Each analysis request submitted is reviewed via the EIAP web site by members of an interdisciplinary working group, which identifies issues and concerns, if any, with the proposal. The reviews result in a determination as to whether the action fits a categorical exclusion, or if an environmental assessment is required. A link to the Geographic Information System is also built into the EIAP web site that allows a proponent to create a map to illustrate the proposal submitted for evaluation. The web site is powered by an Access database and Oracle platform.

Other web-based systems are used to manage and retrieve baseline environmental information. For example, on an intranet website, there exists a library of documents.

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initially in html format, but shifted to PDF formats. The information management system has some 20,000 reference documents key-worded for search capability. Portions of these documents have been scanned and undergone optical character reading to facilitate search and retrieval. In addition, a Geographic Information System is used to store and retrieve vector and raster based information and perform intelligent queries. The software and hardware have advanced rapidly. The biggest challenge (especially in terms of resources) continues to be access to accurate and appropriate data. Mining and performing quality control on geospatial data or actually collecting raw data and incorporating it into a GIS is very expensive and time consuming. Again, regional clearinghouses (tied into a national network) could be the answer. The Nature Conservancy's statewide databases on flora and fauna are a good example of what can be accomplished. Another form of information we use is digital orthophotoquads and satellite imagery. This information can be extremely usefully, especially through the application of remote sensing interpretive tools.

5. What are your preferred methods of conveying or receiving information about proposed actions and NEPA analyses and for receiving NEPA documents (e.g., paper, CD ROM, web-site, public meeting, radio, television)? Explain the basis for your preferences.

6. What information management technologies have been particularly effective in communicating with stakeholders about environmental issues and incorporating environmental values into agency planning and decision-making (e.g., web sites to gather public input or inform the public about a proposed action or technological tools to manage public comments)? What objections or concerns have been raised concerning the use of these tools (e.g., concerns about broad public access)?

At Eglin AFB experience has shown that use of an Environmental Impact Analysis Process (EIAP) Web Site for accomplishing interdisciplinary reviews, and the Geographic Information Systems has been the most effective means of communicating environmental considerations to decision makers. The main reason is the manner in which the GIS has been developed and fielded. The system was designed and populated to make it a useful tool for a wide range of decision makers. Most design files (data layers) are accessible by all users. However, only data layer managers have rights to update/revise information. Planners have access not only to range targets and instrumentation, but to environmental constraints. This encourages them to incorporate environmental factors into mission planning up front as opposed to waiting until our environmental staff accomplishes the formal review. Also having GIS available in conference rooms facilitates easy access to environmental data during committee meetings and working sessions. Finally, deploying the GIS tools across organizations (some info available to all via web based GIS tools and full viewer capability available to over 350 users via desktop PCs and pooled software licenses) supports timely access to information by decision makers at all levels. Resources have not been easy to come by. With regard to security, we had a fairly open architecture (intranet and public web site) before 9/11. Everything posted to the public web site had been scrubbed through a policy and security review process. However, post 9/11 we took down our public web site. The organization has recently reposted a limited public site but we have none of our environmental data posted. We have also decided (before 9/11) not to post NEPA

documents to public web sites, concerned that doing so would extend the opportunity for involvement to parties well outsides our region of influence.

7. What factors should be considered in balancing public involvement and information security?

Given the post 9/11 environment, extra caution must be taken to ensure adequate policy and security review is accomplished on all information released to the public. While individual NEPA documents may not contain sufficient information to pose a security risk, combined with other NEPA documents and referenced material (especially detailed geospatial data), the combination has the potential to disclose targets of opportunity and descriptions of operations, which could be used against us. It is sometimes difficult to determine who gets to see what. This challenge extends beyond public involvement to interagency review. Often a sister federal agency of state/regional/local agency may request additional reference materials to support their technical review of a NEPA document to include in some cases geospatial data. If not adequately protected by that agency, this information could be mined by outside interests creating security risks. Something as simple as showing utility infrastructure could become very useful to individuals or organizations intending to carry out attacks on federal agencies/facilities. At the same time, one of the most important aspects of NEPA is to ensure public involvement through appropriate disclosure of information. A possible solution might be to provide limited information describing the proposed action and alternatives along with a summary of the potential the impacts to the human environment. Addition information could be made available, perhaps for viewing only, following some type of screening.

B. Federal and Inter-governmental Collaboration: The NEPA Task Force will identify current best practices with regard to collaboration among Federal agencies and on an inter-governmental basis with Tribal, State and local governing entities in developing environmental analyses and participating in the NEPA process. The Task Force seeks your input on this topic and requests responses to the following questions (when answering the following questions, please indicate your role and experiences with NEPA).

1. What are the characteristics of an effective joint-lead or cooperating agency relationship/process? Provide example(s) and describe the issues resolved and benefits gained, as well as unresolved issues and obstacles. Such examples may include, but are not limited to, differences in agencies' policies, funding limitations, and public perceptions.

Federal and Inter-governmental Collaboration is vital to the NEPA process for Air Force installations, which serve as a host for various governmental agencies. Increasingly, we are faced with the problem that governmental agencies have different objectives when implementing environmental requirements. Training for joint-lead and cooperating agencies should emphasize consistency in the application of environmental initiatives and laws.

Eglin AFB tries to coordinate NEPA documents through various State Clearinghouses. This is typically done a part of the Federal Consistency Determination pursuant to the Coastal Zone Management Act. Unfortunately, downsizing of staff has had an impact on this type of review. The real void is a lack of engaging with regional and local governments within a "region of influence" other than as members of the public. Other

than normal public notice published in local print media, limited effort is made to coordinate with regional planning councils and counties, which have oversight responsibility for development within a region. If resources were available, it would help to coordinate NEPA actions directly with local (city and county) and regional agencies. It would also be helpful if these agencies coordinated their plans and proposed actions directly with federal facilities that might be affected.

Application of the basics contained in the" Intergovernmental Cooperation Act of 1968 (31 U.S.C. 6501-6508") and Executive Order 12372, "Intergovernmental Review of Federal Programs" would go far in further balancing coordination.

2. What barriers or challenges preclude or hinder the ability to enter into effective collaborative agreements that establish joint-lead or cooperating agency status?

3. What specific areas should be emphasized during training to facilitate joint-lead and cooperating agency status?

Recommend any training developed focus first on the initial concept of joint-lead and cooperating agency status. When all agencies are subsequently approaching this concept from the same perspective, then a focus on application and facilitation would be better grounded and better understood during development of formal NEPA documentation.

C. Programmatic Analysis and Tiering: Opportunities to facilitate timely planning and decision-making to reduce or eliminate redundant and duplicative analyses through the use of programmatic and tiered analyses will be explored. To date, Federal agencies have used programmatic analyses to address a range of issues from facility and land use planning to broad categories of actions, or to sequencing or staging actions. All of these analyses may have subsequent tiered analyses. The Task Force seeks your input on this topic and requests responses to the following questions.

1. What types of issues best lend themselves to programmatic review, and how can they best be addressed in a programmatic analysis to avoid duplication in subsequent tiered analysis? Please provide examples with brief descriptions of the nature of the action or program, decisions made, factors used to evaluate the appropriate depth of the analyses, and the efficiencies realized by the analysis or in subsequent tiers.

Some Air Force commands believe that there are many opportunities where Programmatic Analysis and Tiering would provide significant cost and timesavings benefits. They feel the use of programmatic analysis and tiering would be most effective in the case of force protection, aircraft beddowns, and the analysis of similar actions.

Traditional NEPA analysis was intended to serve decision making for narrowly defined projects (i.e. major construction projects like dams, airports, interstate highways). Consequently, decision-making is normally limited to a few major decision regarding project siting and construction technique. On-going program or land management activities lend themselves more to programmatic analysis.

At Eglin AFB, programmatic documentation has provided numerous benefits. First, it has streamlined the environmental approval process for individual mission activities. Second, it has supported a holistic view of the base's operations for the first time, allowing planners to better understand potential cumulative effects from on-going missions. This understanding will hopefully allow the base, for example, to better plan for range sustainment, which is critical to sustaining access for warfighters to the air, land, and water ranges they need to test and train as they will be expected to fight. Finally, these programmatic documents have elevated the awareness of the senior military leaders who are responsible for management and decision-making.

Also, when there are frequent and unpredictable changes in the level of an activity needed for a complex organization and the organization operates within defined physical boundaries, programmatic analysis can be used to help eliminate duplication in subsequent tiered analyses of specific proposals. The actions subjected to programmatic analysis should be broadly defined to allow a myriad of subsequently identified specific projects to fit under the umbrella of the programmatic analysis.

As an example, a programmatic analysis was prepared for Sheppard Air Force Base (AFB) in Wichita Falls, Texas, that assessed the impacts of development and use of the installation to its full potential (maximum capacity) based on existing facilities and available unused land on the installation. The Future Land Use plan of the General Plan was the basis for projecting the maximum physical plant expansion. The existing and potential facilities provided the basis for determining the maximum level of activities associated with maximum development. The programmatic analysis of the defined maximum capacity (in terms of facilities, people, and activities) of the installation has allowed quick, in-house tiered analyses of several proposals that would have otherwise required repetitive environmental assessments prepared by contractors. As new proposals are identified, the NEPA program manager first determines what project-specific and site-specific aspects of the project are not assessed in the programmatic analysis. The manager then prepares a tiered analysis referencing the applicable portions of the programmatic analysis. This General Plan-based Environmental Impact Analysis Process (GEIAP) approach to NEPA compliance has enabled the program manager at Sheppard AFF to prepare 12 tiered environmental assessments over the past three years using in-house resources that would otherwise have been prepared by contract at substantial cost. An additional benefit is that tiered environmental assessments prepared in-house can be accomplished much faster which reduces the potential for decisions being delayed and/or adverse consequences to the mission. (Details are provided in the case study presented below.)

2. Please provide examples of how programmatic analyses have been used to develop, maintain and strengthen environmental management systems, and examples of how an existing environmental management system can facilitate and strengthen NEPA analyses. Examples of an environmental management system may include but are not limited to systems certified under ISO 14001 (further information on ISO 14001 can be found on the Web at: http://es.epa.gov/partners/iso/iso.html).

The programmatic GEIAP approach to NEPA compliance including the automated NEPAMS is used at Sheppard AFB as the foundation for NEPA program management.

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This management system is working better than the traditional system of preparing an individual, stand-alone analysis for a project. GEIAP with NEPAMS provides better information on cumulative effects, saves personnel resources, and avoids repetitiveness and expenditure of funds for contract services.

Adaptive Management/Monitoring and Evaluation Plans: The CEQ report, "The National Environmental Policy Act: A study of Its Effectiveness After Twenty-five Years", recognized that by incorporating adaptive management into their NEPA analyses, agencies can move beyond simple compliance and better target environmental improvement. An adaptive environmental management approach can respond to uncertainty and the limits of knowledge and experience in making decisions. Such an approach allows for approval of an action with uncertain outcomes by establishing performance-based environmental parameters or outcomes and monitoring to ensure that they are achieved. When those parameters or outcomes are not met, corrective changes would be triggered, for instance to ensure that significant environmental degradation does not occur. The Task Force seeks your input on this topic and requests responses to the following questions.

1. What factors are considered when deciding to use an adaptive management approach?

The key to achieving sustainability is monitoring. Key indicators of environmental health and economic well-being need to be identified and monitoring systems developed to support trend analyses. The challenge again is resources.

2. How can environmental impact analyses be structured to consider adaptive management?

3. What aspects of adaptive management may, or may not, require subsequent NEPA analyses?

Day-to-day decision-making consistent with programmatic analysis should not require formal NEPA analysis.

4. What factors should be considered (e.g., cost, timing, staffing needs, environmental risks) when determining what monitoring techniques and levels of monitoring intensity are appropriate during the implementation of an adaptive management regime? How does this differ from current monitoring activities?

Factors to be considered in designing monitoring techniques and intensity include all those listed in the question: cost, timing, staffing needs, and environmental risks. Other factors include risk of discovering potentially controversial conditions and the ability to determine contributing factors/sources. Also whether or not the agency is willing to make the resource commitment to analyze the data and properly monitoring trends across key indicators, as well as take action to change operations in accordance with adaptive management philosophy.

E. Categorical Exclusions: Agencies can identify categories of actions that do not individually or cumulatively have a significant effect on the human environment and which, therefore, do not require preparation of an Environmental Assessment or an Environmental Impact Statement. The NEPA Task Force will consider the bases and

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process for establishing categorical exclusions. The Task Force seeks your input on this topic and requests responses to the following questions.

1. What information, data, studies, etc., should be required as the basis for establishing a categorical exclusion?

Although each federal agency develops its own list of Categorical Exclusions, it is not uncommon for more than one agency to have some responsibility for the same "major federal action." This is a frequent occurrence on Air Force installations, which may host tenant organizations from several different federal agencies. In such cases the Air Force, at times as host, assumes a NEPA compliance responsibility for the tenant's actions on the host installation. This becomes problematic when the tenant has an appropriate categorical exclusion available but the Air Force does not. Currently CEQ regulations do not provide a means to adopt the other agency's categorical exclusions. However, the existence of a valid and applicable categorical exclusion should be sufficient basis for establishing, or adopting, a similar categorical exclusion by the host agency in order to fulfill its related NEPA responsibility. Restricting the application of such adopted categorical exclusions to actions by the agency that formally established them would prevent abuse.

The use of logic and the body of previous environmental analyses accomplished throughout the country should be sufficient to establish suitability of establishing Categorical Exclusions for activities that obviously or repeatedly are shown to have insignificant effects in the absence of unusual circumstances.

Where existing environmental regulations adequately address potential environmental impacts, the citation of those regulations should be adequate for establishing a Categorical Exclusion. For example, mitigation of environmental impacts from removal of underground storage tanks (UST) in the State of Texas is adequately addressed in existing state regulations. Therefore, there should be no need to prepare an EA for UST removal.

2. What points of comparison could an agency use when reviewing another agency's use of a similar categorical exclusion in order to establish a new categorical exclusion?

No points of comparison would be required for establishment of a categorical exclusion in the scenario described above, in response to question 1. However, the host agency should retain the right to decline application of any such categorical exclusions, particularly in the presence of extenuating circumstances

3. Are improvements needed in the process that agencies use to establish a new categorical exclusion? If so, please describe them.

The procedures for adopting another agency's categorical exclusion, or for establishing a restricted-use categorical exclusion identical to that of another agency, for use as described in the scenario above, must be simple and quick for this approach to be useful

See also, the answer to question 1, regarding existing environmental regulations.

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F. Additional Areas for Consideration: In addition to the topics described above, the NEPA Task Force will consider comments on NEPA practices that would improve and modernize NEPA implementation.

For example, the NEPA Task Force requests public comments on the appropriate utility of and structure or format for environmental assessment documents.

The NEPA Task Force will use the information and comments it receives to identify, evaluate, and make recommendations on improving NEPA implementation and to prepare case studies that include examples of best practices.

The CEQ web site (http://www.whitehouse.gov/ceq/) contains little practical information on preparing documentation to comply with NEPA. Model documents that satisfy CEQ expectations could be attached. Examples of successful tiering or adopting of documents could also be shown, attached, or described.

Suggest that CEQ develop or endorse specific training on NEPA to include training on creating EAs and EISs that meet CEQ expectations.

Recommend that CEQ review the agency lists of Categorical Exclusions to develop a CEQ list of universal exclusions that apply to common activities in the absence of unusual circumstances.

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CASE STUDY

GENERAL PLAN-BASED APPROACH TO AIR FORCE COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT

INTRODUCTION

Headquarters (HQ) Air Education and Training Command (AETC) and Sheppard Air Force Base (AFB), Texas, identified a need to enhance the effectiveness of the base's planning and decision-making process. Under past procedures, decisions regarding specific physical development projects, training, or operations activities at Sheppard AFB were made following individual environmental analysis for each proposal. Each analysis focused on the narrow scope of a single action or a small group of actions. This made it more difficult to effectively capture the cumulative effects of other ongoing, concurrent, and future actions. The past procedures consumed staff time or generated significant contract costs for environmental analyses that were often repetitive. Additionally, commanders often had to delay decisions pending completion of individual project environmental documentation, even though the proposal was similar to previous actions that resulted in a finding of no significant impact to the environment. A new approach was desired which would be more responsive, better capture short and long term cumulative effects, avoid repetitiveness, and save monetary and personnel resources.

GENERAL PLAN-BASED ENVIRONMENTAL IMPACT ANALYSIS

The new approach is to accomplish in-house tiered analysis of a project or group of projects based on prior programmatic analysis of broadly defined reasonable and foreseeable activities. The original analysis, an environmental assessment (EA) for Installation Development for Sheppard AFB, provided baseline (no action) environmental information, analysis of the specific impacts of the Capital Improvements Program, and programmatic analysis of maximum installation activity as limited by the capacity of existing facilities and facilities that could be built based on the Future Land Use Plan of the General Plan. Analyses tiered from general plan-derived proposals are the foundation of the General Plan-based Environmental Impact Analysis Process (GEIAP) program. Under this approach, the general plan is not assessed—only development alternatives derived from the general plan. The intent of GEIAP is to streamline compliance with the National Environmental Policy Act (NEPA) using the concept of tiered environmental analyses as promulgated by the Council on Environmental Quality (CEQ). The Sheppard AFB Environmental Flight has implemented this new approach. GEIAP recognizes the value of tiered analyses as a tool to expedite future analyses and recognizes that base development and mission activities are processes that constantly change with regard to baseline conditions and environmental impacts. Consistent with CEQ Regulations (Sec 1501.2) which require agencies to integrate the NEPA process with other planning at the earliest possible time to ensure that planning and decisions reflect environmental values, GEIAP provides planners and decision-makers environmental information related to potential future expansion of current mission activities and specific proposals in the context of overall potential cumulative impacts from maximum installation activity.

NATIONAL ENVIRONMENTAL POLICY ACT MANAGEMENT SYSTEM (NEPAMS)

Having prepared an EA based on the development alternatives derived from the General Plan, a NEPA Management System (NEPAMS) was developed to facilitate in-house preparation of tiered environmental assessments. NEPAMS includes an electronic database that contains baseline environmental information and the quantitative impacts of full development of the installation; calculates the impacts of proposed projects using information such as construction footprint, personnel changes, building floor space, and changes in the number of aircraft operations; and compares the incremental impacts of the project and cumulative impacts of previous projects to the level assessed in the environmental assessment. Non-quantitative resource areas such as cultural and biological resources are assessed using maps showing critical resources.

NEPAMS enables the environmental staff to provide a quick response to decision makers regarding the potential environmental impacts of proposals. Each project still receives individual attention for compliance with NEPA, but the analysis is performed against the background of the potential impacts of the maximum sustainable mission. Figures 1 and 2 summarize and illustrate the development and use of the GEIAP approach.

BENEFITS

The GEIAP approach to NEPA compliance using NEPAMS offers the following advantages:

•GEIAP allows early formulation of environmental considerations to support operating and planning decisions.

•GEIAP reduces the need for preparing repetitive individual environmental documents.

•GEIAP allows for tiering from an "umbrella" environmental impact analysis for supplemental analysis and decision documents on new projects.

•GEIAP creates a current year baseline environmental reference document and allows systematic updates to this baseline.

•GEIAP tracks the cumulative effects of installation activities as a whole.

•GEIAP provides a means for rapid scoping of proposed actions to focus specific effort on those impact areas requiring further analysis.

•GEIAP standardizes the methods of analysis.

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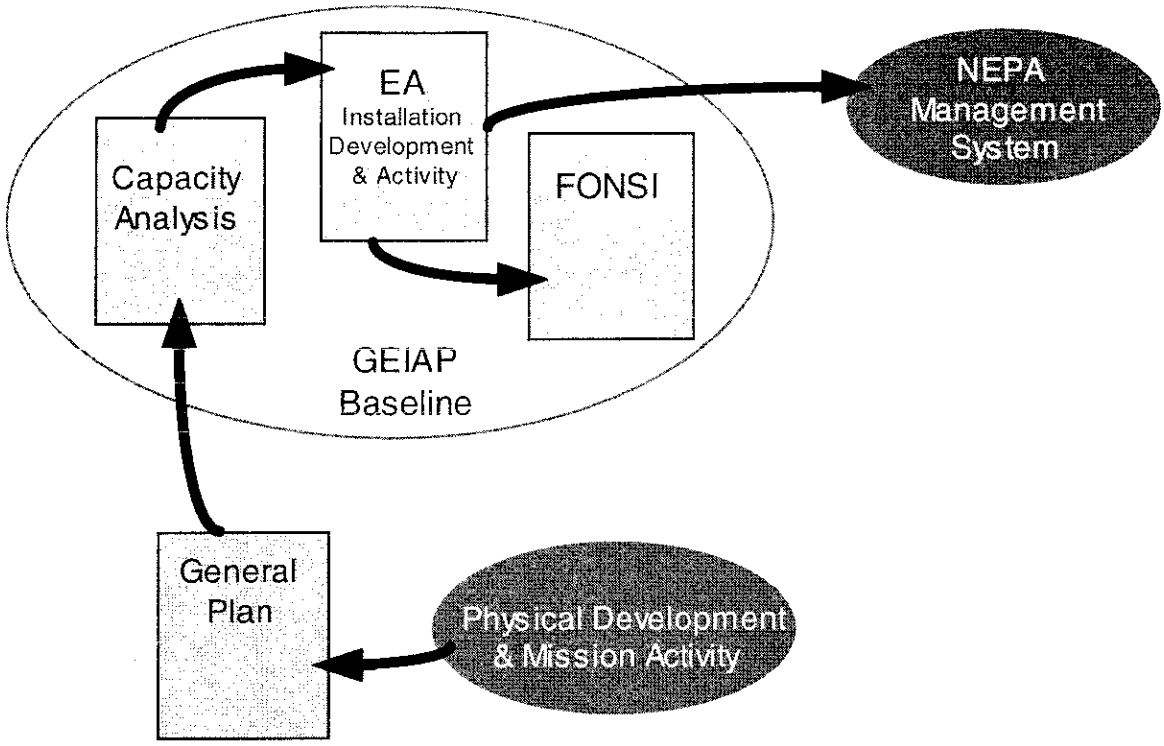

Figure 1. GEIAP Development

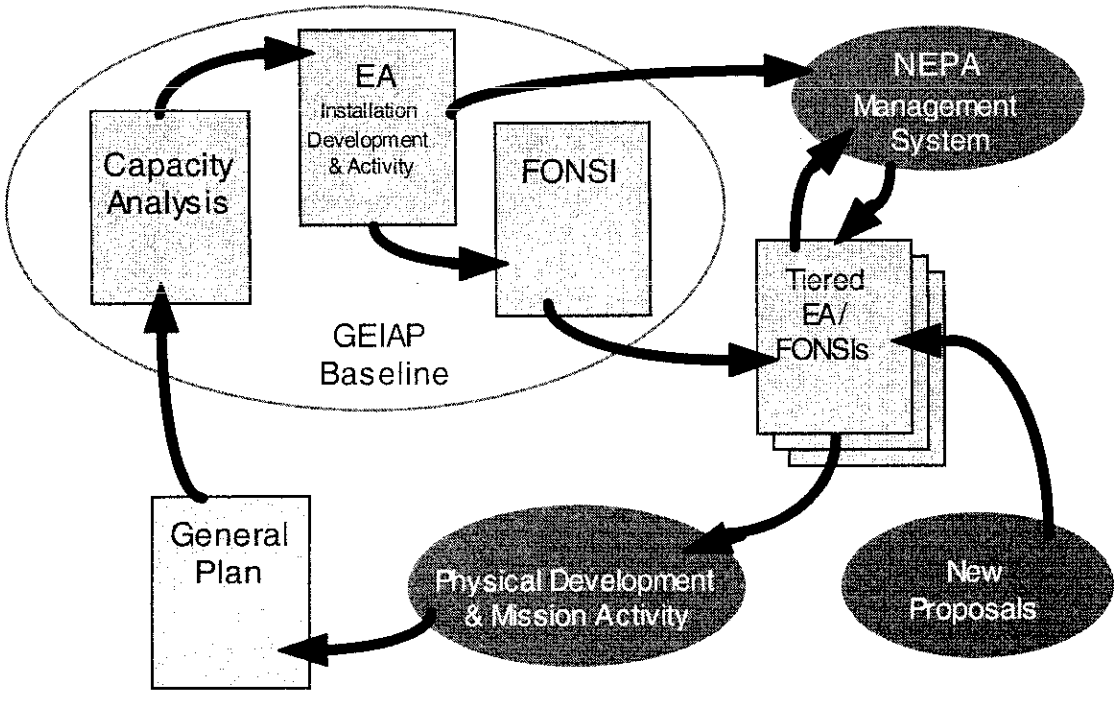

Figure 2. Management With GEIAP

EIAP MANAGEMENT OF SPECIFIC PROJECTS OR ACTIONS WITH GEIAP AND NEPAMS

An AF Form 813, *Request for Environmental Impact Analysis*, is generally used for all proposals, including those projects or actions already assessed in the EA for Installation Development, to ensure proper record keeping. An AF Form 332, *Work Request*, may also initiate the process. Upon receipt of an AF Form 813 or AF Form 332, the NEPA program manager determines the required level of analysis and documentation for each project. An initial screening determines whether a Categorical Exclusion (CATEX), EA, or Environmental Impact Statement (EIS) is an appropriate course of action.

CATEX. The first step in the initial screening is to determine whether the project or action is eligible for a CATEX per 32 Code of Federal Regulations 989, *Environmental Impact Analysis Process*. The appropriate data for specific projects are entered in NEPAMS to track cumulative impacts where the project may cause environmental effects. The purpose of entering such data in NEPAMS for a CATEX is to assure that all cumulative impacts are considered when tiered EAs are performed. If a CATEX is applicable, the AF Form 813 or AF Form 332 can be annotated with the appropriate CATEX and signed.

If the project is not eligible for a CATEX, the second step in the initial screening determines whether the project or action was specifically included and fully assessed in the EA for Installation Development. The proposed project or action is compared with the list of assessed projects or actions. If the proposed project has already been fully assessed and has not been substantially revised, then the AF Form 813 is signed with a notation that the action was previously assessed in the EA for Installation Development and no further EIAP action is required. As part of the process, project or action attributes are entered in NEPAMS.

Tiered Environmental Assessment. If the project or action was not fully addressed in the EA for Installation Development, then a tiered analysis is usually required, culminating in a Finding of No Significant Impact (FONSI) or a determination that an environmental impact statement is required. The project data will be reviewed to determine the resource areas to be addressed. Certain resource areas may not require additional analysis. A standard template for a tiered EA was developed for Sheppard AFB.

Structurally, the tiered EA matches the EA for Installation Development, but baseline data and analysis are pared to a minimum by incorporation of the EA for Installation Development by reference as provided in CEQ regulations. Two figures are included as a minimum, a regional location map of Sheppard AFB and a project layout showing the proposed action. Appendices in the tiered EA include the AF Form 813 for the proposed action, the NEPAMS database report for the project that includes project-specific and cumulative impacts, and the interagency coordination letters as necessary for each project. The tiered EA, if short, includes a FONSI. Otherwise, a separate FONSI is prepared.

The impacts for the following resource areas are calculated by NEPAMS using unit factors established in the EA for Installation Development: aircraft operations, noise, air quality (construction and operations), water resources, infrastructure and utilities, solid waste, hazardous materials and wastes, and socioeconomics. NEPAMS also tracks cumulative changes in impact levels for all actions and compares these impacts to the maximum capacity alternative assessed in the EA for Installation Development. The NEPAMS database automatically calculates

quantifiable impacts for the environmental issues previously identified, adds the impacts for each project to the baseline (no action) impacts and to the impacts for other projects that have been input to the database, and facilitates a comparison with the impacts of the maximum capacity alternative in the EA for Installation Development. The project-specific report from the NEPAMS database indicates whether or not cumulative impacts have exceeded the levels assessed in the EA for Installation Development. NEPAMS is updated for all projects that can cause environmental effects, regardless of whether a CATEX is issued or a tiered EA is produced.

Data input to NEPAMS at Sheppard AFB for each proposal includes:

•General project and EIAP tracking and decision making information,

•Number of aircraft sorties by airplane type,

•Affected floor space in new or existing facilities,

•Change in impervious cover,

•Construction cost, and

•Change in personnel levels.

The tiered EA requires specific assessment for the following environmental issues since impacts for these are not readily quantifiable using a tool such as the NEPAMS database: earth resources, floodplains, wetlands, land use, biological resources, cultural resources, environmental justice. Generally, these issues are addressed using standard best management practices or a simple statement that resources are or are not affected. For example, the only National Register eligible property at Sheppard AFB is the Little Adobe, Building 2130. Individual projects either affect this property or they do not. If there is an effect, a project-specific analysis must be prepared. Digital maps and graphics contained in the NEPAMS database identify sensitive areas to assist in assessing the potential impacts on floodplains, wetlands, and land use. Impacts associated with earth resources, floodplains, wetlands, land use, biological resources, cultural resources, environmental justice, and other project-specific issues are addressed in a tiered EA.

Environmental Impact Statement. Potentially, a project or action could require an EIS. Standard EIS procedures would be applied to those projects. Use of the current baseline information from the Installation Development EA for the draft Chapter 3, Affected Environment, would simplify preparation of an EIS.

Figure 3 illustrates and summarizes the screening process used to determine the appropriate analysis avenue for proposed projects or actions.

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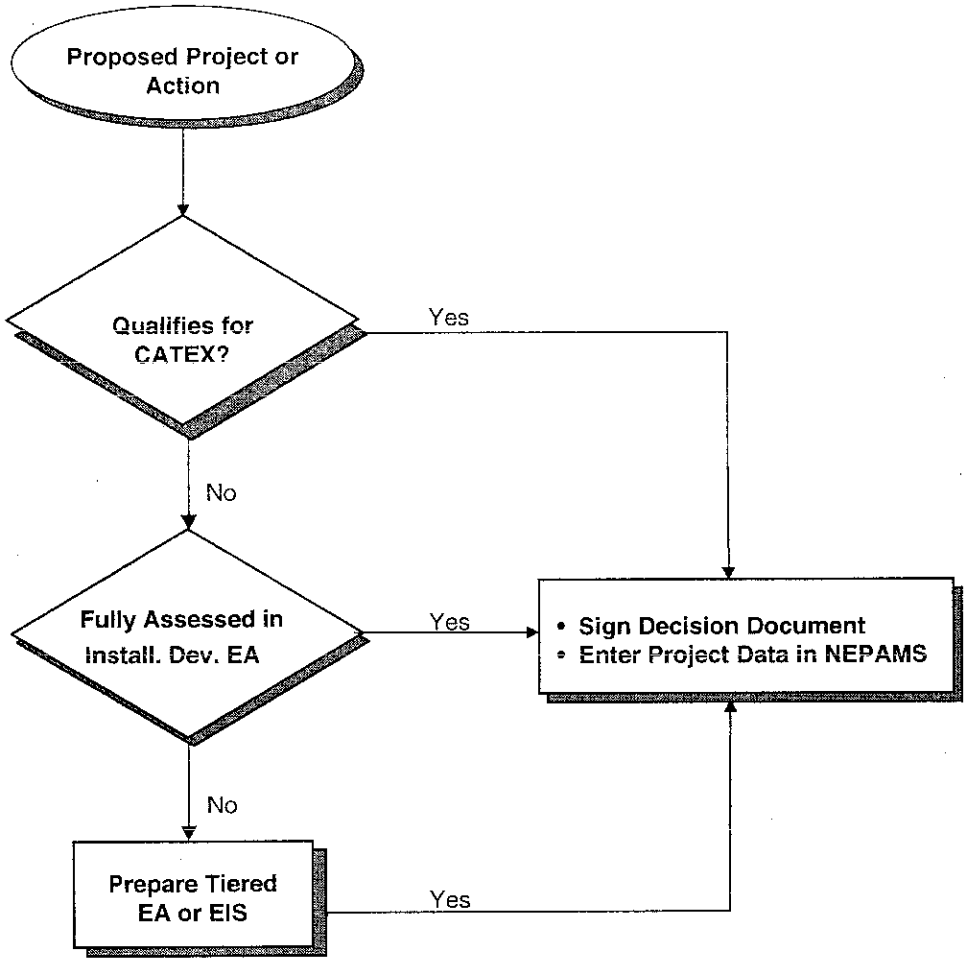

Figure 3. GEIAP Decision Tree